

Mosher

1641

Serial Number: 09/449,631

ENTERED

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MAY 30 2000

TECH CENTER 1600/2900

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.
- ☐ Edited a format error in the Current Application Data section, specifically: _____
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: _____
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: _____
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: _____
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included: _____
- ☐ Deleted extra, invalid, headings used by an applicant, specifically: _____
- ☐ Deleted: ☐ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as _____
- ☐ Inserted mandatory headings, specifically: _____
- ☐ Corrected an obvious error in the response, specifically: _____
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically: _____
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____
- ☒ Other: added <220> identifier in Seq 19-21

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MAY 30 2000

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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/449,631

DATE: 05/15/2000
TIME: 16:03:49

Input Set : A:\Pto.amc
Output Set: N:\CRF3\05152000\I449631.raw

4 <110> APPLICANT: Renner, Wolfgang A.
5 Hennecke, Frank
6 Nieba, Lars
7 Bachmann, Martin
9 <120> TITLE OF INVENTION: Ordered Molecular Presentation of Antigens, Method of
10 Preparation and Use
12 <130> FILE REFERENCE: 1700.0030002
14 <140> CURRENT APPLICATION NUMBER: US 09/449,631
15 <141> CURRENT FILING DATE: 1999-11-30
17 <150> PRIOR APPLICATION NUMBER: US 60/110,414
18 <151> PRIOR FILING DATE: 1998-11-30
20 <150> PRIOR APPLICATION NUMBER: US 60/142,778
21 <151> PRIOR FILING DATE: 1999-07-08
23 <160> NUMBER OF SEQ ID NOS: 88
25 <170> SOFTWARE: PatentIn Ver. 2.1
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28 <211> LENGTH: 41
29 <212> TYPE: DNA
30 <213> ORGANISM: Artificial Sequence
32 <220> FEATURE:
33 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
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41 <212> TYPE: DNA
42 <213> ORGANISM: Artificial Sequence
44 <220> FEATURE:
45 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
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51 <210> SEQ ID NO: 3
52 <211> LENGTH: 20
53 <212> TYPE: DNA
54 <213> ORGANISM: Artificial Sequence
56 <220> FEATURE:
57 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
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60 ccatgaggcc tacgataccc 20
63 <210> SEQ ID NO: 4
64 <211> LENGTH: 25
65 <212> TYPE: DNA
66 <213> ORGANISM: Artificial Sequence
68 <220> FEATURE:
69 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
71 <400> SEQUENCE: 4
72 ggcactcacg gcgcgcttta caggc 25

RAW SEQUENCE LISTING DATE: 05/15/2000
 PATENT APPLICATION: US/09/449,631 TIME: 16:03:49

Input Set : A:\Pto.amc
 Output Set: N:\CRF3\05152000\I449631.raw

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88 <211> LENGTH: 40
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93 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
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102 <213> ORGANISM: Artificial Sequence
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105 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
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115 <213> ORGANISM: Artificial Sequence
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118 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
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128 <213> ORGANISM: Artificial Sequence
130 <220> FEATURE:
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137 <210> SEQ ID NO: 10
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140 <213> ORGANISM: Artificial Sequence
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RAW SEQUENCE LISTING DATE: 05/15/2000
 PATENT APPLICATION: US/09/449,631 TIME: 16:03:49

Input Set : A:\Pto.amc
 Output Set: N:\CRF3\05152000\I449631.raw

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154 <220> FEATURE:
155 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
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166 <220> FEATURE:
167 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
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173 <210> SEQ ID NO: 13
174 <211> LENGTH: 15
175 <212> TYPE: DNA
176 <213> ORGANISM: Artificial Sequence
178 <220> FEATURE:
179 <223> OTHER INFORMATION: Description of Artificial Sequence: Modified ribosome
180 binding site
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183 aggaggtaaa aaacg                                           15
186 <210> SEQ ID NO: 14
187 <211> LENGTH: 21
188 <212> TYPE: PRT
189 <213> ORGANISM: Artificial Sequence
191 <220> FEATURE:
192 <223> OTHER INFORMATION: Description of Artificial Sequence: signal peptide
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196 1      5      10      15
198 Thr Val Ala Gln Ala
199 20
202 <210> SEQ ID NO: 15
203 <211> LENGTH: 46
204 <212> TYPE: PRT
205 <213> ORGANISM: Artificial Sequence
207 <220> FEATURE:
208 <223> OTHER INFORMATION: Description of Artificial Sequence: modified Fos
209 construct
211 <400> SEQUENCE: 15
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213 1      5      10      15
215 Asp Glu Lys Ser Ala Leu Gln Thr Glu Ile Ala Asn Leu Leu Lys Glu
216 20      25      30

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RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/449,631
 DATE: 05/15/2000
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 Input Set : A:\Pto.amc
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223 <211> LENGTH: 6
224 <212> TYPE: PRT
225 <213> ORGANISM: Artificial Sequence
227 <220> FEATURE:
228 <223> OTHER INFORMATION: Description of Artificial Sequence: peptide linker
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232      1      5
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236 <211> LENGTH: 6
237 <212> TYPE: PRT
238 <213> ORGANISM: Artificial Sequence
240 <220> FEATURE:
241 <223> OTHER INFORMATION: Description of Artificial Sequence: peptide linker
243 <400> SEQUENCE: 17
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245      1      5
248 <210> SEQ ID NO: 18
249 <211> LENGTH: 256
250 <212> TYPE: DNA
251 <213> ORGANISM: Artificial Sequence
253 <220> FEATURE:
254 <223> OTHER INFORMATION: Description of Artificial Sequence: Fos fusion construct
256 <400> SEQUENCE: 18
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259 ctgaccgaca cctgcaggc ggaaaccgac caggtggaag acgaaaaatc cgcgctgcaa 180
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261 ggtggttgc t aagctt                                     256
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266 <212> TYPE: PRT
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269 <223> OTHER INFORMATION: Description of Artificial Sequence: Fos fusion construct
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273      5      10      15
275 Glu Thr Asp Gln Val Glu Asp Glu Lys Ser Ala Leu Gln Thr Glu Ile
276      20      25      30
278 Ala Asn Leu Leu Lys Glu Lys Glu Lys Leu Glu Phe Ile Leu Ala Ala
279      35      40      45
281 His Gly Gly Cys
282      50
286 <210> SEQ ID NO: 20
287 <211> LENGTH: 261

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/449,631

DATE: 05/15/2000

TIME: 16:03:49

Input Set : A:\Pto.amc

Output Set: N:\CRF3\05152000\I449631.raw

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292 <223> OTHER INFORMATION: Description of Artificial Sequence: Fos fusion
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295 <220> FEATURE:
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302                               1           5           10
304 gca ctg gct ggt ttc gct acc gta gcg cag gcc tgc ggt ggt ctg acc    99
305 Ala Leu Ala Gly Phe Ala Thr Val Ala Gln Ala Cys Gly Gly Leu Thr
306                               15           20           25
308 gac acc ctg cag gcg gaa acc gac cag gtg gaa gac gaa aaa tcc gcg    147
309 Asp Thr Leu Gln Ala Glu Thr Asp Gln Val Glu Asp Glu Lys Ser Ala
310                               30           35           40
312 ctg caa acc gaa atc gcg aac ctg ctg aaa gaa aaa gaa aag ctg gag    195
313 Leu Gln Thr Glu Ile Ala Asn Leu Leu Lys Glu Lys Glu Lys Leu Glu
314                               45           50           55
316 ttc atc ctg gcg gca cac ggt ggt tgc ggt ggt tct gcg gcc gct      240
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320 ggggtgtgggg atatcaagct t                                          261
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333     1           5           10           15
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336     20           25           30
338 Thr Asp Gln Val Glu Asp Glu Lys Ser Ala Leu Gln Thr Glu Ile Ala
339     35           40           45
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345     65           70
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351 <212> TYPE: DNA
352 <213> ORGANISM: Artificial Sequence
354 <220> FEATURE:
355 <223> OTHER INFORMATION: Description of Artificial Sequence: Fos fusion

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VERIFICATION SUMMARY DATE: 05/15/2000
PATENT APPLICATION: US/09/449,631 TIME: 16:03:50

Input Set : A:\Pto.amc
Output Set: N:\CRF3\05152000\I449631.raw

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L:474 M:283 W: Missing Blank Line separator, <220> field identifier
L:534 M:283 W: Missing Blank Line separator, <220> field identifier
L:755 M:283 W: Missing Blank Line separator, <220> field identifier

M. Mosher

1641

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/449,631

DATE: 05/09/2000
TIME: 12:07:40

Input Set : A:\seq listing.txt
Output Set: N:\CRF3\05092000\I449631.raw

Does Not Comply
Corrected Diskette Needed

4 <110> APPLICANT: Renner, Wolfgang A.
5 Hennecke, Frank
6 Nieba, Lars
7 Bachmann, Martin
9 <120> TITLE OF INVENTION: Ordered Molecular Presentation of Antigens, Method of
10 Preparation and Use
12 <130> FILE REFERENCE: 1700.0030002
14 <140> CURRENT APPLICATION NUMBER: US 09/449,631
C--> 15 <141> CURRENT FILING DATE: 1999-01-30
17 <150> PRIOR APPLICATION NUMBER: US 60/110,414
18 <151> PRIOR FILING DATE: 1998-11-30
20 <150> PRIOR APPLICATION NUMBER: US 60/142,778
21 <151> PRIOR FILING DATE: 1999-07-08
23 <160> NUMBER OF SEQ ID NOS: 88
25 <170> SOFTWARE: PatentIn Ver. 2.1
27 <210> SEQ ID NO: 1
28 <211> LENGTH: 41
29 <212> TYPE: DNA
30 <213> ORGANISM: Artificial Sequence
32 <220> FEATURE:
33 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
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42 <213> ORGANISM: Artificial Sequence
44 <220> FEATURE:
45 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
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51 <210> SEQ ID NO: 3
52 <211> LENGTH: 20
53 <212> TYPE: DNA
54 <213> ORGANISM: Artificial Sequence
56 <220> FEATURE:
57 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
59 <400> SEQUENCE: 3
60 ccatgaggcc tacgataccc 20
63 <210> SEQ ID NO: 4
64 <211> LENGTH: 25
65 <212> TYPE: DNA
66 <213> ORGANISM: Artificial Sequence
68 <220> FEATURE:
69 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
71 <400> SEQUENCE: 4
72 ggcactcacg gcgcgcttta caggc 25

RAW SEQUENCE LISTING DATE: 05/09/2000
 PATENT APPLICATION: US/09/449,631 TIME: 12:07:40

Input Set : A:\seq listing.txt
 Output Set: N:\CRF3\05092000\I449631.raw

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75 <210> SEQ ID NO: 5
76 <211> LENGTH: 47
77 <212> TYPE: DNA
78 <213> ORGANISM: Artificial Sequence
80 <220> FEATURE:
81 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
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92 <220> FEATURE:
93 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
95 <400> SEQUENCE: 6
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99 <210> SEQ ID NO: 7
100 <211> LENGTH: 90
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104 <220> FEATURE:
105 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
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109 catcgtctgc accagctggc ctttgacacc 90
112 <210> SEQ ID NO: 8
113 <211> LENGTH: 108
114 <212> TYPE: DNA
115 <213> ORGANISM: Artificial Sequence
117 <220> FEATURE:
118 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
120 <400> SEQUENCE: 8
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122 gctgggtttcg ctaccgtagc gcaggccttc ccaaccattc ccttatcc 108
125 <210> SEQ ID NO: 9
126 <211> LENGTH: 31
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128 <213> ORGANISM: Artificial Sequence
130 <220> FEATURE:
131 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
133 <400> SEQUENCE: 9
134 cccgaattcc tagaagccac agctgccctc c 31
137 <210> SEQ ID NO: 10
138 <211> LENGTH: 24
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142 <220> FEATURE:
143 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
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RAW SEQUENCE LISTING DATE: 05/09/2000
 PATENT APPLICATION: US/09/449,631 TIME: 12:07:40

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 Output Set: N:\CRF3\05092000\I449631.raw

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154 <220> FEATURE:
155 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
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167 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
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174 <211> LENGTH: 15
175 <212> TYPE: DNA
176 <213> ORGANISM: Artificial Sequence
178 <220> FEATURE:
179 <223> OTHER INFORMATION: Description of Artificial Sequence: Modified ribosome
180      binding site
182 <400> SEQUENCE: 13
183 aggaggtaaa aaacg                                         15
186 <210> SEQ ID NO: 14
187 <211> LENGTH: 21
188 <212> TYPE: PRT
189 <213> ORGANISM: Artificial Sequence
191 <220> FEATURE:
192 <223> OTHER INFORMATION: Description of Artificial Sequence: signal peptide
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196   1           5           10           15
198 Thr Val Ala Gln Ala
199           20
202 <210> SEQ ID NO: 15
203 <211> LENGTH: 46
204 <212> TYPE: PRT
205 <213> ORGANISM: Artificial Sequence
207 <220> FEATURE:
208 <223> OTHER INFORMATION: Description of Artificial Sequence: modified Fos
209      construct
211 <400> SEQUENCE: 15
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213   1           5           10           15
215 Asp Glu Lys Ser Ala Leu Gln Thr Glu Ile Ala Asn Leu Leu Lys Glu
216           20           25           30

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RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/449,631

DATE: 05/09/2000
 TIME: 12:07:40

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 Output Set: N:\CRF3\05092000\I449631.raw

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 219 35 40 45
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 223 <211> LENGTH: 6
 224 <212> TYPE: PRT
 225 <213> ORGANISM: Artificial Sequence
 227 <220> FEATURE:
 228 <223> OTHER INFORMATION: Description of Artificial Sequence: peptide linker
 230 <400> SEQUENCE: 16
 231 Ala Ala Ala Ser Gly Gly
 232 1 5
 235 <210> SEQ ID NO: 17
 236 <211> LENGTH: 6
 237 <212> TYPE: PRT
 238 <213> ORGANISM: Artificial Sequence
 240 <220> FEATURE:
 241 <223> OTHER INFORMATION: Description of Artificial Sequence: peptide linker
 243 <400> SEQUENCE: 17
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 245 1 5
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 250 <212> TYPE: DNA
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 254 <223> OTHER INFORMATION: Description of Artificial Sequence: Fos fusion construct
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 259 ctgaccgcaca ccctgcaggc ggaaaccgac caggtggaag acgaaaaatc cgcgctgcaa 180
 260 accgaaatcg cgaacctgct gaaagaaaaa gaaaagctgg agttcctcct ggcggcacac 240
 261 ggtggttgct aagctt
 264 <210> SEQ ID NO: 19
 265 <211> LENGTH: 52
 266 <212> TYPE: PRT
 267 <213> ORGANISM: Artificial Sequence
 268 <223> OTHER INFORMATION: Description of Artificial Sequence: Fos fusion construct
 270 <220> FEATURE:
 270 <400> SEQUENCE: 19
 271 Ala Ala Ala Ser Gly Gly Cys Gly Gly Leu Thr Asp Thr Leu Gln Ala
 272 5 10 15
 274 Glu Thr Asp Gln Val Glu Asp Glu Lys Ser Ala Leu Gln Thr Glu Ile
 275 20 25 30
 277 Ala Asn Leu Leu Lys Glu Lys Glu Lys Leu Glu Phe Ile Leu Ala Ala
 278 35 40 45
 280 His Gly Gly Cys
 281 50
 285 <210> SEQ ID NO: 20
 286 <211> LENGTH: 261

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/449,631

DATE: 05/09/2000
 TIME: 12:07:40

Input Set : A:\seq listing.txt
 Output Set: N:\CRF3\05092000\I449631.raw

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287 <212> TYPE: DNA
288 <213> ORGANISM: Artificial Sequence
290 <220> FEATURE:
291 <223> OTHER INFORMATION: Description of Artificial Sequence: Fos fusion
292   construct
294 <220> FEATURE:
295 <221> NAME/KEY: CDS
296 <222> LOCATION: (22)..(240)
298 <400> SEQUENCE: 20
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301                               1      5      10
303 gca ctg gct ggt ttc gct acc gta gcg cag gcc tgc ggt ggt ctg acc   99
304 Ala Leu Ala Gly Phe Ala Thr Val Ala Gln Ala Cys Gly Gly Leu Thr
305                               15      20      25
307 gac acc ctg cag gcg gaa acc gac cag gtg gaa gac gaa aaa tcc gcg   147
308 Asp Thr Leu Gln Ala Glu Thr Asp Gln Val Glu Asp Glu Lys Ser Ala
309                               30      35      40
311 ctg caa acc gaa atc gcg aac ctg ctg aaa gaa aaa gaa aag ctg gag   195
312 Leu Gln Thr Glu Ile Ala Asn Leu Leu Lys Glu Lys Glu Lys Leu Glu
313                               45      50      55
315 ttc atc ctg gcg gca cac ggt ggt tgc ggt ggt tct gcg gcc gct   240
316 Phe Ile Leu Ala Ala His Gly Gly Cys Gly Gly Ser Ala Ala Ala
317                               60      65      70
319 ggggtgtgggg atatcaagct t   261
322 <210> SEQ ID NO: 21
323 <211> LENGTH: 73
324 <212> TYPE: PRT
325 <213> ORGANISM: Artificial Sequence
326 <223> OTHER INFORMATION: Description of Artificial Sequence: Fos fusion
W-> 329 <220> FEATURE:
329 <400> SEQUENCE: 21
330 Met Lys Lys Thr Ala Ile Ala Ile Ala Val Ala Leu Ala Gly Phe Ala
331   1      5      10      15
333 Thr Val Ala Gln Ala Cys Gly Gly Leu Thr Asp Thr Leu Gln Ala Glu
334   20      25      30
336 Thr Asp Gln Val Glu Asp Glu Lys Ser Ala Leu Gln Thr Glu Ile Ala
337   35      40      45
339 Asn Leu Leu Lys Glu Lys Glu Lys Leu Glu Phe Ile Leu Ala Ala His
340   50      55      60
342 Gly Gly Cys Gly Gly Ser Ala Ala Ala
343   65      70
347 <210> SEQ ID NO: 22
348 <211> LENGTH: 196
349 <212> TYPE: DNA
350 <213> ORGANISM: Artificial Sequence
352 <220> FEATURE:
353 <223> OTHER INFORMATION: Description of Artificial Sequence: Fos fusion
354   construct

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VERIFICATION SUMMARY DATE: 05/09/2000
PATENT APPLICATION: US/09/449,631 TIME: 12:07:41

Input Set : A:\seq listing.txt
Output Set: N:\CRF3\05092000\I449631.raw

L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:270 M:258 W: Mandatory Feature missing, <220> FEATURE:
L:329 M:258 W: Mandatory Feature missing, <220> FEATURE:
L:385 M:258 W: Mandatory Feature missing, <220> FEATURE:
L:474 M:258 W: Mandatory Feature missing, <220> FEATURE:
L:533 M:258 W: Mandatory Feature missing, <220> FEATURE:
L:753 M:258 W: Mandatory Feature missing, <220> FEATURE: